

**ENVIRONMENTAL
ASSOCIATES, INC.**

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President

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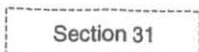
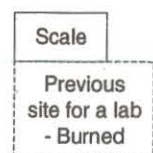
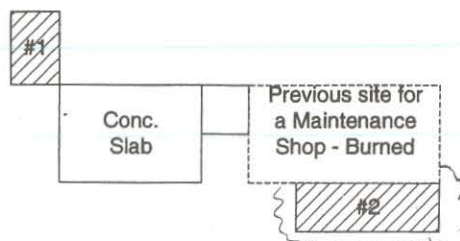
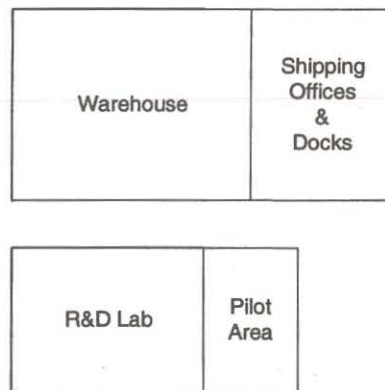
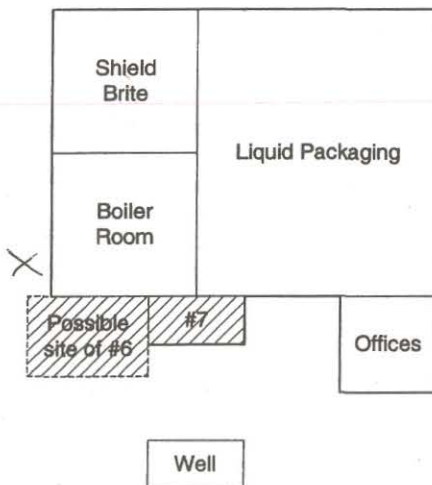
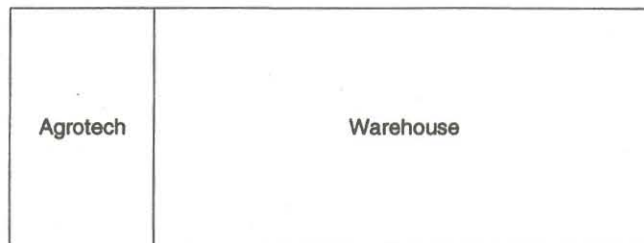
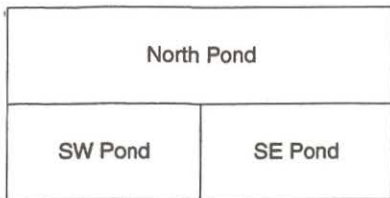
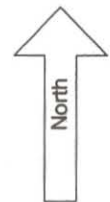
UPDATED PHASE I ENVIRONMENTAL AUDIT

Former Juice Processing Plant
5661 Branch Road
Wapato, Washington

Wapato Associates Limited Partnership



- #1 = 2,000 Gallon Diesel Tank, Removed in 1991
- #2 = 10,000 Gallon Fuel Oil Tank, Removed 1991 - contamination of soil present
- #3 = 300 Gallon Heating Oil Tank, Removed 1988
- #4 = 300 Gallon Heating Oil Tank, Removed 1991
- #5 = 499 Gallon Diesel Tank, Removed in 1988
- #6 = 4,999 Gallon Diesel Tank, Removed in 1988
- #7 = 1,000 Gallon Diesel Tank, Removed in 1991



Railroad Tracks

- Exterior materials included painted wood, metal, and concrete block. Roofs were pitched with composition shingles on the office building, and slightly pitched with metal roofing on the other buildings.
- Interior walls were of painted concrete blocks, vinyl-coated panels, painted wood, painted drywall, and wood paneling.
- Ceilings were of suspended acoustical panels, painted drywall, plastic-covered or exposed fiberglass batts, and "popcorn"-textured drywall.
- Flooring materials included concrete, vinyl tile, and carpet.
- Lighting was provided by fluorescent, incandescent, and halide fixtures.
- Heat was provided by suspended gas heaters, a forced-air electric furnace, and electric baseboard units.
- Refrigeration for cold storage was provided by ammonia units.
- A floor sump in the processing building received well water and discharged it to a nearby creek.

Past Use of Property

The plant was originally constructed to produce fruit juice concentrate. Raw fruit was washed and crushed, and the juice depectinized, filtered, and stored on site in above-ground storage tanks. To produce the final product, the juice was concentrated, then packaged in drums and held in cold storage awaiting shipment.

This process produced solid waste consisting of fruit pulp, diatomaceous earth (filtration material), and rice hulls, which were disposed of off site by a local farmer. Process wastewater was aerated and stabilized in a lagoon system, then sprayed on fields on the northwest section

of the property. Materials stored and used on site consisted of hydraulic fluid, gear oil, motor oil, bunker oil, chlorine, acid cleaners, caustic cleaners, and quaternary ammonia. These were used in the operation and maintenance of the process equipment.

Underground Storage Tanks

There are no underground storage tanks (USTs) believed to be on the property at present. An Environment Assessment performed by Thorne Environmental of Lynnwood, Washington in November 1988 identified three USTs. These included a 15,500-gallon fuel oil tank, an 800-gallon gasoline tank, and a 250-gallon gasoline tank. Exploratory excavation and soil sampling identified some free product around the 15,500-gallon tank. The extent of the contamination, however, was not identified. Petroleum products were not found around the other two tanks.

All three tanks were removed in December 1988, prior to the current set of regulations regarding USTs and UST removal. According to Thorne's report, no closure documentation was prepared. The Yakima County Fire Marshal did not have any records regarding removal of these tanks. The locations of the USTs described in the Thorne Environmental report were not indicated, nor was the report available for our review.

A November 1989 audit performed by O'Brien and Gere Engineers, Inc. identified at least two additional USTs, based on observation of fill and vent lines. In August 1991, four USTs were permitted to be removed from the site at the locations indicated in O'Brien and Gere's 1989 audit. These included a 2,000-gallon diesel tank, a 10,000 gallon P.S. 300 oil tank, a 300-gallon heating oil tank, and a 1,000-gallon heating oil tank. The tank removal was performed by Major Petroleum Service Company and the site assessment reports were prepared by White Shield, Inc.

One report, dated June 1991, covered the removal of the 2,000-gallon and 10,000-gallon tanks. These tanks were located on the property south of Branch Road and were said to be used for refueling railroad locomotives. Contamination exceeding WDOE action levels was found in the soil and groundwater adjacent to the 10,000 gallon tank. Remedial action was taken until analyses indicated that the excavation was free from contamination. The excavated material was land farmed on the Sanofi Bio-Industries property in the vacant field behind the main processing building. The approximate location is described as being 600 feet north of Branch Road and 1,000 feet east of Lateral B Road.

The second report, dated August 1991, documented the removal of one 1,000 gallon heating oil tank. This tank was located south of the main processing building. No sign of contamination was present in the excavation, and soil samples were free from contamination. No mention was made of the fourth tank in either report.

Above-Ground Storage Tanks

There is one 25,000-gallon above-ground fuel oil storage tank located at the southwest corner of the processing building. The tank holds fuel oil for the boilers and is surrounded by a concrete containment wall approximately six feet high. At the time of our visit, there were no signs of recent leaks and no sheen on the water standing in the bottom of the enclosure. Previous environmental audits noted stains on the walls and the tank sides, indicating minor spillages at some previous time. Other above-ground tanks on the property include two propane tanks, one on the north side of the main process building and one on the south side, and several stainless steel above-ground tanks in the process and cold storage buildings used solely for storing fruit juice.



ASSOCIATES, INC.

Don W. Spencer, M.Sc.
President

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SUPPLEMENTAL ENVIRONMENTAL STUDY

Former Juice Processing Plant
5661 Branch Road
Wapato, Washington

Wapato Associates Limited Partnership

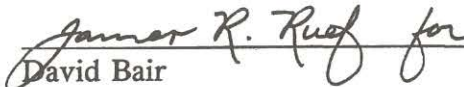
SUPPLEMENTAL ENVIRONMENTAL STUDY


Former Juice Processing Plant
5661 Branch Road
Wapato, Washington

Prepared for:

Wapato Associates Limited Partnership
700 Fifth Avenue, Suite 6100
Seattle, Washington 98104

Questions regarding this investigation, the conclusions reached and the recommendations given should be addressed to one of the following undersigned.


David Bair
Environmental Engineer
EPA-Certified AHERA Building Inspector
I.D. No. 950109-01


Don W. Spencer, M.Sc., P.G., R.E.A.
Principal

EPA-Certified Asbestos Inspector/Management Planner
I.D. # AM 48151

Registered Site Assessor/Licensed UST Supervisor
Washington Department of Ecology
State Certification #947458636

License: W000010 (Washington)
License: 11464 (Oregon)
License: 876 (California)

Reference Job Number: 5111-1

July 18, 1995

ENVIRONMENTAL ASSOCIATES, INC.

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INTRODUCTION/SCOPE OF WORK

The subject property was formerly operated as a juice processing plant by Sanofi Bio-Industries and is located at 5661 Branch Road in Wapato, Washington. It was the subject of an Updated Phase I Environmental Audit performed by Environmental Associates, Inc. (EAI) presented on June 1, 1995. A 1993 audit of the property performed by J-U-B Engineers of Kennewick Washington reported that in 1988 workers had observed petroleum-contaminated soil while removing a 15,500 gallon underground storage tank (UST) whose location was not identified. EAI contacted the former comptroller at Sanofi Bio-Industries, who stated that the 15,500-gallon UST was located beneath what is now a chemical storage room on the south side of the main processing plant. A second area of potential concern was the effect on local groundwater of Sanofi Bio-Industries former practices of operating process wastewater lagoons on site and of spraying process wastewater on fields. These practices had reportedly prompted complaints in the past by nearby landowners regarding groundwater quality.

In an effort to resolve these two remaining environmental issues, EAI made a single boring in the vicinity of the former UST, and obtained water samples from selected existing on-site monitoring wells and the main water supply at the plant for laboratory analysis.

FINDINGS

GENERAL DESCRIPTION

The subject property includes a rectangular-shaped parcel of land covering approximately 51 acres. Improvements to the property include a processing plant built in the early 1970's which encloses 26,352 square feet, a cold storage building of unknown age enclosing 6,368 square feet, a building constructed in 1989 providing cold storage, dry storage, laboratory, and truck loading space enclosing 28,697 square feet, and a former residence of unknown age which has been converted into office space and encloses 2,097 square feet. Additional improvements include landscaping and asphalt-paved parking. The property is currently being modified for use as a wax-blending plant. The property is located in an agricultural area approximately fifteen miles south of Yakima, Washington and its approximate location is shown on the Vicinity Map, Plate 1, appended herewith.

FORMER UNDERGROUND STORAGE TANK

Drilling

On July 3, 1995, one (1) boring was made in the vicinity of the former UST, approximately five feet south of the chemical storage room. The boring location is identified as "test boring" on Plate 2. Equipment employed for the drilling consisted of a mobile truck-mounted drilling unit equipped with an ODEX air rotary unit. Under the supervision of the staff engineer, the drilling unit was brought into position over the selected location, blocked up and leveled before drilling. Following set-up, the drill string was advanced to the depth required. Total depth of the boring was 16 feet subsurface.

Subsurface material encountered included a coarse to fine gravel found at five feet and fifteen feet and a medium brown sand with gravel, typical of UST backfill material, found at ten feet.

Soil and Groundwater Sampling

Soil samples were obtained at five-foot intervals, to a total depth of 16 feet. The sampling technique consisted of advancing the boring to the desired depth, then lowering the sampler through the center of the drill string. The sampler assembly was then driven eighteen (18) inches at each sampling interval using a 300 pound hammer in general accordance with ASTM Method D-1586. The sampler was then be withdrawn and opened for examination and transfer of the sample to laboratory-prepared glassware.

Samples were transferred from the sampler directly to sterilized glassware with Teflon-sealed lids furnished by the project laboratory. Samples were stored in an iced chest at the site and taken to the lab in this condition to minimize excessive dissipation of volatile fraction hydrocarbons. Each jar was clearly labeled as to project number, sample number, etc. EPA-recommended protocol for sample management including maintenance of chain-of-custody documentation was observed at each stage of the project.

During drilling, a field log was made by the project engineer for the boring. Information recorded versus corresponding depth shall include soil classification (Unified Soil Classification System), color, texture, apparent moisture content, odors (if present), seepage zones (if present), etc.

Groundwater was encountered at a depth of approximately 12 feet subsurface, and a sample was obtained through the center of the drill string using a stainless steel bailer.

Laboratory Analysis

Since the soil sample from the ten-foot interval appeared to be backfill from the UST excavation, it was selected for analysis as a likely "worst-case" sample. Given the reported use of the tank for storing boiler fuel, the soil and groundwater samples were analyzed in accordance with WTPH-D, a gas chromatographic method for diesel-range petroleum hydrocarbons. Soil and groundwater were found to be free from detectable concentrations of petroleum hydrocarbons.

SITE GROUNDWATER QUALITY

As discussed in EAI's June 1, 1995 Phase I Audit, eight wells are located on the subject property: one is a water supply well for the property, two are fire wells, and the remaining five are monitoring wells. The water supply well is located between the south side of the main processing plant and Branch Road, and reportedly can supply up to 1.2 million gallons per day of water. Five groundwater monitoring wells were installed in 1992 to address complaints regarding groundwater quality in the area.

In an effort to evaluate groundwater quality for comparison to EPA and state guidelines, we obtained water samples for analysis from the plant water supply and from Monitoring Wells 4 and 5. Monitoring Well 5 (MW-5) is located near the former wastewater lagoons and sprayfield. Monitoring Well 4 (MW-4), on the eastern side of the property, is near a drainage ditch formerly used for wastewater discharge and a burial pit used to dispose of pumice and diatomaceous earth.

Samples were placed directly into laboratory-prepared containers. Samples were stored in an iced chest at the site and taken to the lab in this condition in an effort to maintain sample integrity. Each container was clearly labeled as to project number, sample number, etc. EPA-recommended protocol for sample management, including maintenance of chain-of-custody documentation, was observed at each stage of the project.

All three samples were characterized using EPA Primary and Secondary Drinking Water Standards for inorganic compounds by an analytical laboratory. Results for the three wells appear in the following tables:

Primary Inorganic Chemical Analysis:

Analyte	Main Supply Well	MW-4	MW-5	EPA Standards
Arsenic	ND	ND	ND	0.05
Barium	0.050	ND	ND	2.0
Cadmium	ND	ND	ND	0.005

Analyte	Main Supply Well	MW-4	MW-5	EPA Standards
Chromium	ND	ND	ND	0.1
Fluoride	0.16	0.15	0.16	4
Lead	ND	ND	ND	0.015
Mercury	ND	ND	ND	0.002
Nitrate as nitrogen	1.3	1.5	3.3	10
Selenium	ND	ND	ND	0.05
Silver	ND	ND	ND	0.1
Sodium	0.91	9.3	14	NA
Turbidity (NTU)	5.4	7.3	6.0	NA
Note: All concentrations are expressed in parts per million unless stated otherwise. ND indicates that the analyte was not detected. NA indicates that the EPA has not recommended a maximum concentration for that analyte.				

Secondary Inorganic Chemical Analysis:

Analyte	Main Supply Well	MW-4	MW-5	EPA Standards
Chloride	6.2	4.4	7.7	250
Color (color units)	ND	10	ND	15
Copper	ND	ND	ND	1
Hardness	110	86	140	NA
Iron	ND	0.30	ND	0.3
Manganese	ND	0.066	ND	0.05
Specific Conductivity (umhos/cm)	300	230	320	NA
Sulfate	15	14	23	250
Total Dissolved Solids	200	160	180	500
Zinc	0.046	0.037	0.034	5
Note: All concentrations are expressed in parts per million unless stated otherwise. ND indicates that the analyte was not detected. NA indicates that the EPA has not recommended a maximum concentration for that analyte.				

Laboratory documentation, including chain of custody information, appears as an appendix to this report.

CONCLUSIONS/RECOMMENDATIONS

Based upon the information developed in the course of our study, it appears that, with respect to petroleum concentration, the soil and groundwater in the vicinity of the former 15,500-gallon UST are in full compliance with MTCA guidelines and that, excluding momentarily the elevated concentration of manganese found in water from MW-4, the groundwater meets or exceeds national primary and secondary drinking water regulations as set by the U.S. EPA.

ELEVATED MANGANESE CONCENTRATION

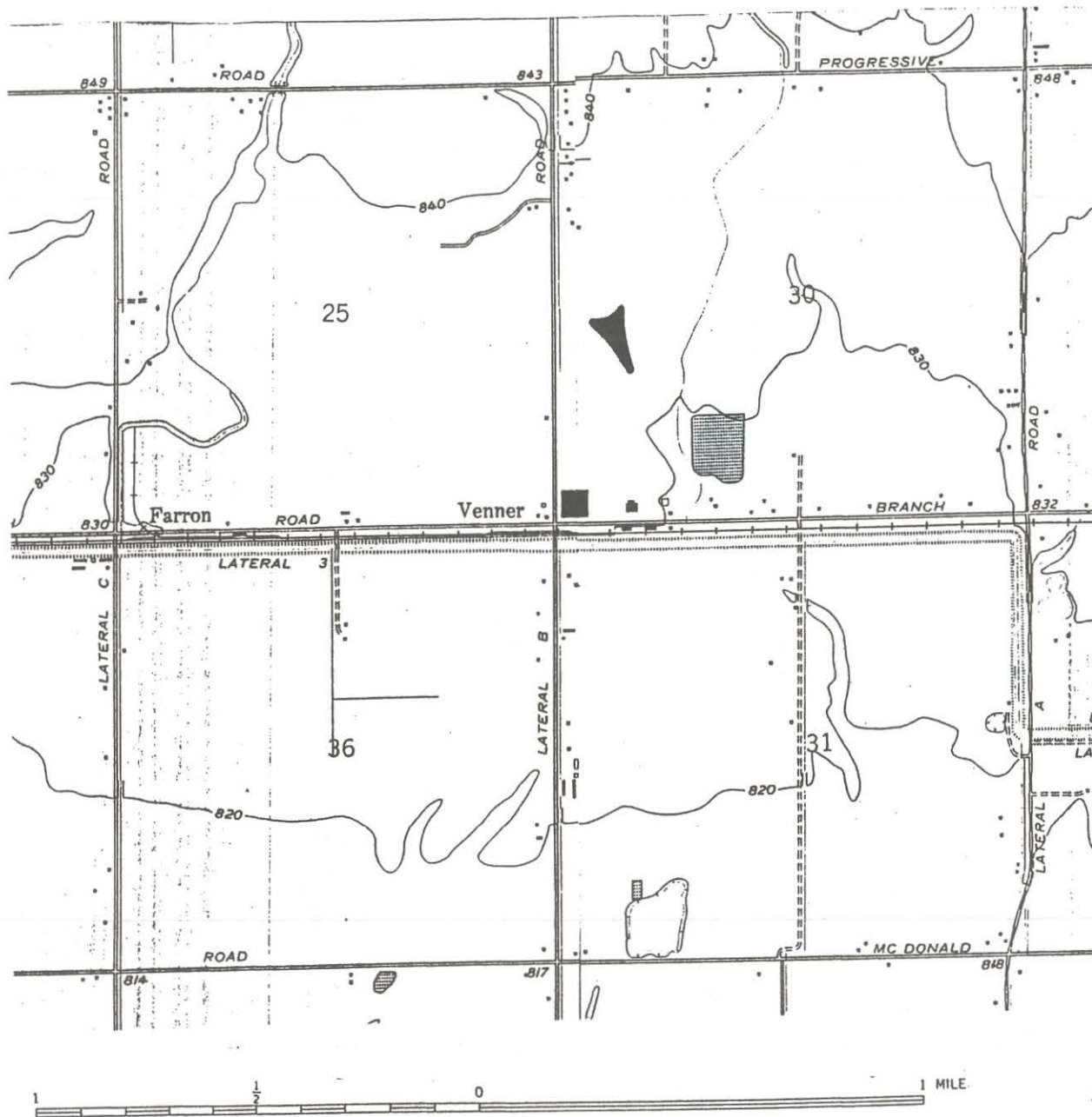
The groundwater sample obtained from MW-4 showed a concentration of manganese very slightly in excess of EPA's recommendation for drinking water. Manganese in water derives from the native soil and rock materials and is rarely associated with toxicity in humans or livestock. At concentrations above 0.150 parts per million, it can precipitate and cause staining problems similar to those encountered with iron. For this reason, the EPA has recommended a maximum level in drinking water of 0.05 parts per million. As the water from MW-4 is not used for drinking or other purposes, it does not appear that the slightly elevated concentration of manganese poses a concern at present. Should this well be converted to a water supply well at some future date, we recommend retesting and, if necessary, treatment to reduce the manganese concentration to appropriate levels.

LIMITATIONS

This report has been prepared for the exclusive use of Wapato Associates Limited Partnership, along with West One Bank, and their several representatives for specific application to this site. Our work for this project was conducted in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our proposal dated June 28, 1995. No other warranty, expressed or implied, is made. If new information is developed in future site work which may include excavations, borings, studies, etc., Environmental Associates, Inc., must be retained to reevaluate the conclusions of this report and to provide amendments as required.

REFERENCES

- Campbell, Newell. 1979. Surficial Geologic Map of the Yakima Quad, Washington, Open File Report 79-15. Washington Department of Natural Resources, Division of Geology and Earth Resources. Olympia, Washington.
- Environmental Associates, Inc. Updated Phase I Environmental Audit, Former Juice Processing Plant, 5661 Branch Road, Wapato, Washington. Environmental Associates, Inc. Bellevue, Washington.
- Fetter, C. W. Jr. 1980. Applied Hydrogeology. Charles E. Merrill Publishing Co. Columbus, Ohio.
- Johnson Division, UOP Inc. 1975. Ground Water and Wells. Johnson Division, UOP Inc. Saint Paul, Minnesota.
- J-U-B Engineers, Inc. November 1993. Level I Environmental Property Assessment prepared for Seneca Foods Corporation. J-U-B Engineers, Inc. Kennewick, Washington.
- U.S. Environmental Protection Agency. May 16, 1995. Current National Primary and Secondary Drinking Water Regulations. U.S. Environmental Protection Agency, Region 10. Seattle, Washington.



Probable Direction of Shallow-Seated Groundwater Flow



Site Location



ENVIRONMENTAL ASSOCIATES, INC.

2122 - 112th Avenue N.E., Ste. B-100
Bellevue, Washington 98004

VICINITY MAP

Former Juice Processing Plant
5661 Branch Road
Wapato, Washington

Job Number:
JN 5111-1

Date:
July 1995

Plate:

1

Approximate Direction of Groundwater Flow



N



orchard

former
sprayfield

vegetated

former
lagoon

MW-5

former
lagoon

MW-4

Lateral Road B

vineyard

Subject Property

main processing
plant

cold storage

office

test boring

former UST
location

office

main water
supply well

asphalt paving

Yakima
County
property

Branch Road

cold storage

Not to Scale



**ENVIRONMENTAL
ASSOCIATES, INC.**

2122 - 112th Avenue N.E., Ste. B-100
Bellevue, Washington 98004

SITE MAP

Former Juice Processing Plant
5661 Branch Road
Wapato, Washington

Job Number:
JN 5111-1

Date:
July 1995

Plate:
2

APPENDIX

Laboratory Documentation and Chain of Custody



**OnSite
Environmental Inc.**

July 10, 1995
Lab Traveler #:07-008

Dave Bair
Environmental Associates, Inc.
2227 112th Avenue NE, Suite 120
Bellevue, WA 98004

Dear Dave:

Enclosed are the results of the analyses of samples submitted on July 3, 1995 from Project 5111-1.

We appreciate this opportunity to be of service to you on this project. If you have any questions regarding this report, please feel free to call me.

Sincerely,

Wendy Linn McLeod
Project Chemist

Enclosures

Date of Report: July 10, 1995
Samples Submitted: July 3, 1995
Lab Traveler: 07-008
Project: 5111-1

WTPH-D (extended)

Date Extracted: 7-07-95
Date Analyzed: 7-07-95

Matrix: Water
Units: mg/L (ppm)

Client ID	Lab ID	Dilution Factor	Total Petroleum Hydrocarbons	Surrogate Recovery	Flags	PQL
B-1	07-008-1	0.02	ND	82%	L	0.50

L-Quantitated from C7-C34 as diesel fuel #2.

Date of Report: July 10, 1995
Samples Submitted: July 3, 1995
Lab Traveler: 07-008
Project: 5111-1

WTPH-D
METHOD BLANK QUALITY CONTROL

Date Extracted: 7-07-95
Date Analyzed: 7-07-95

Matrix: Water
Units: mg/L (ppm)

Lab ID: MB0707W1
Client ID: Batch QA

	Dilution Factor	Total Petroleum Hydrocarbons	Surrogate Recovery	Flags	PQL
Method Blank	0.02	ND	76%		0.50

Date of Report: July 10, 1995
Samples Submitted: July 3, 1995
Lab Traveler: 07-008
Project: 5111-1

WTPH-D
DUPLICATE QUALITY CONTROL

Date Extracted: 7-07-95
Date Analyzed: 7-07-95

Matrix: Water
Units: mg/L (ppm)

Lab ID: 07-013-1
Client ID: Batch QA

	Dilution Factor	Total Petroleum Hydrocarbons	Surrogate Recovery	Flags	PQL
Sample	0.02	ND	94%		0.50
Duplicate	0.02	ND	82%		0.50
RPD		NA			

Date of Report: July 10, 1995
Samples Submitted: July 3, 1995
Lab Traveler: 07-008
Project: 5111-1

WTPH-D (extended)

Date Extracted: 7-06-95
Date Analyzed: 7-06-95

Matrix: Soil
Units: mg/Kg (ppm)

Client ID	Lab ID	Dilution Factor	Total Petroleum Hydrocarbons	Surrogate Recovery	Flags	PQL
B-1 10'	07-008-2	1.0	ND	114%	L	25

L-Quantitated form C7-C34 as diesel fuel #2.

Date of Report: July 10, 1995
Samples Submitted: July 3, 1995
Lab Traveler: 07-008
Project: 5111-1

WTPH-D
METHOD BLANK QUALITY CONTROL

Date Extracted: 7-06-95
Date Analyzed: 7-06-95

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID: MB0706S1
Client ID: Batch QA

	Dilution Factor	Total Petroleum Hydrocarbons	Surrogate Recovery	Flags	PQL
Method Blank	1.0	ND	111%		25

Date of Report: July 10, 1995
Samples Submitted: July 3, 1995
Lab Traveler: 07-008
Project: 5111-1

WTPH-D
DUPLICATE QUALITY CONTROL

Date Extracted: 7-06-95
Date Analyzed: 7-06-95

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID: 07-012-1
Client ID: Batch QA

	Dilution Factor	Total Petroleum Hydrocarbons	Surrogate Recovery	Flags	PQL
Sample	1.0	ND	106%		25
Duplicate	1.0	ND	101%		25
RPD		NA			

Date of Report: July 10, 1995
Samples Submitted: July 3, 1995
Lab Traveler: 07-008
Project: 5111-1

WTPH-D
SB/SBD QUALITY CONTROL

Date Extracted: 7-06-95
Date Analyzed: 7-06-95

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID: SB0706S1
Client ID: Batch QA

	Dilution Factor	Total Petroleum Hydrocarbons	Percent Recovery	Surrogate Recovery	Flags	PQL
Spike Blank @ 100 ppm	1.0	100	100%	119%		25
Spike Blank Duplicate	1.0	104	104%	125%		25
RPD		4.2%				

Date of Report: July 10, 1995
Samples Submitted: July 3, 1995
Lab Traveler: 07-008
Project: 5111-1

Date Analyzed: 7-6-95

% MOISTURE

Client ID

% Moisture

B-1 10'

5.0

COMP/ Environmental Assoc.PROJECT # 5111-1PROJECT NAME WapatoMANAGER Dave BairPM WLM
**OnSite
Environmental Inc.**

 14924 NE 31st Circle, Redmond, WA 98052
 Phone (206) 883-3881 Fax (206) 885-4603

WTPH-HCID	WTPH-G/BTEX	WTPH-G	WTPH-D extended	WTPH-418.1				DRY WEIGHT
-----------	-------------	--------	-----------------	------------	--	--	--	------------

 REQUESTED
 IN AROUND?

 TRAVELER #
07-008

Dash	Sample Number	Date Sampled	Time Sampled	Type	# Jars	Analysis Required								Comments
1	B-1	7-3		W	1					✓				
2	B-1 10'	7-3		S	1					✓			X	
3	B-1 5'													hold
4	B-1 15'													hold

Submitted David BairFirm EAI

Submitted _____

Firm _____

Date 7-3Time 4:43pm

Date _____

Time _____

Received by Isaiah Hanson Date 7/3/95Firm CEC Time 4:43pm

Received by _____ Date _____

Firm _____ Time _____

Environmental Associates, Inc.
 2122 112th Avenue NE, #B-100
 Bellevue, WA 98004
 Attention: Dave Bair

Client Project ID: Wapato
 Sample Matrix: Water
 Units: mg/L (ppm)

Analyst: R. Wood
 J. Wright

Reported: Jul 12, 1995

INORGANIC QUALITY CONTROL DATA REPORT

ANALYTE

Fluoride Nitrate Turbidity, NTU

EPA Method: 340.2 300.0 180.1
 Date Analyzed: Jul 8, 1995 Jul 3, 1995 Jul 3, 1995

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	1.0	0.90	20
LCS Spike Result:	0.99	0.83	21
LCS Spike % Recovery:	99	92	105
Upper Control Limit:	115	108	111
Lower Control Limit:	88	93	94

PRECISION ASSESSMENT

Sample #:	B507039-02	B507024-01	B507024-01
Original:	0.64	1.5	7.3
Duplicate:	0.66	1.6	7.9
Relative % Difference:	3.1	6.5	7.9
Maximum RPD:	16	12	17

NORTH CREEK ANALYTICAL Inc.

Sally J. Hanley
 Project Manager

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	Original Result - Duplicate Result	x 100
	(Original Result + Duplicate Result) / 2	

507024.EAI <6>

Environmental Associates, Inc.
2122 112th Avenue NE, #B-100
Bellevue, WA 98004
Attention: Dave BairProject Name: Wapato
Client Project : #5111-1
NCA Project #: B507024Received: Jul 3, 1995
Reported: Jul 12, 1995**PROJECT SUMMARY PAGE**

Laboratory Sample Number	Sample Description	Sample Matrix	Date Sampled
B507024-01	MW-4	Water	7/3/95
B507024-02	MW-5	Water	7/3/95
B507024-03	MAIN WELL	Water	7/3/95

The results in this report apply to the samples analyzed in accordance with the chain of custody document.
This analytical report must be reproduced in its entirety.

NORTH CREEK ANALYTICAL Inc.
Sally J. Hanley
Project Manager


507024.EAI <1>

Environmental Associates, Inc.
2122 112th Avenue NE, #B-100
Bellevue, WA 98004
Attention: Dave BairClient Project ID: Wapato
Sample Descript: Water, MW-4
Sample Number: B507024-01Sampled: Jul 3, 1995
Received: Jul 3, 1995
Analyzed: Jul 3-11, 1995
Reported: Jul 12, 1995**PRIMARY INORGANIC CHEMICAL ANALYSIS**

Analyte	Reporting Limit mg/L (ppm)	Sample Results mg/L (ppm)
Arsenic.....	0.0040	N.D.
Barium.....	0.020	N.D.
Cadmium.....	0.00010	N.D.
Chromium.....	0.020	N.D.
Fluoride.....	0.10	0.15
Lead.....	0.0020	N.D.
Mercury.....	0.0010	N.D.
Nitrate as N.....	0.10	1.5
Selenium.....	0.0050	N.D.
Silver.....	0.020	N.D.
Sodium.....	0.50	9.3
Turbidity, NTU.....	1.0	7.3

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Sally J. Hanley
Project Manager

507024.EAI <2>

Environmental Associates, Inc.
2122 112th Avenue NE, #B-100
Bellevue, WA 98004
Attention: Dave BairClient Project ID: Wapato
Sample Descript: Water, MW-5
Sample Number: B507024-02Sampled: Jul 3, 1995
Received: Jul 3, 1995
Analyzed: Jul 3-11, 1995
Reported: Jul 12, 1995**PRIMARY INORGANIC CHEMICAL ANALYSIS**

Analyte	Reporting Limit mg/L (ppm)	Sample Results mg/L (ppm)
Arsenic.....	0.0040	N.D.
Barium.....	0.020	N.D.
Cadmium.....	0.00010	N.D.
Chromium.....	0.020	N.D.
Fluoride.....	0.10	0.16
Lead.....	0.0020	N.D.
Mercury.....	0.0010	N.D.
Nitrate as N.....	0.10	3.3
Selenium.....	0.0050	N.D.
Silver.....	0.020	N.D.
Sodium.....	0.50	14
Turbidity, NTU.....	1.0	6.0

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Sally J. Hanley
Project Manager

507024.EAI <3>

Environmental Associates, Inc.
2122 112th Avenue NE, #B-100
Bellevue, WA 98004
Attention: Dave Bair

Client Project ID: Wapato
Sample Descript: Water, MAIN WELL
Sample Number: B507024-03

Sampled: Jul 3, 1995
Received: Jul 3, 1995
Analyzed: Jul 3-11, 1995
Reported: Jul 12, 1995

PRIMARY INORGANIC CHEMICAL ANALYSIS

Analyte	Reporting Limit mg/L (ppm)	Sample Results mg/L (ppm)
Arsenic.....	0.0040	N.D.
Barium.....	0.020	0.050
Cadmium.....	0.00010	N.D.
Chromium.....	0.020	N.D.
Fluoride.....	0.10	0.16
Lead.....	0.0020	N.D.
Mercury.....	0.0010	N.D.
Nitrate as N.....	0.10	1.3
Selenium.....	0.0050	N.D.
Silver.....	0.020	N.D.
Sodium.....	0.50	0.91
Turbidity, NTU.....	1.0	5.4

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Sally J. Hanley
Project Manager

507024.EAI <4>

Environmental Associates, Inc.
2122 112th Avenue NE, #B-100
Bellevue, WA 98004
Attention: Dave BairClient Project ID: Wapato
Sample Descript: Method Blank
Sample Number: BLK0703-071195Analyzed: Jul 3-11, 1995
Reported: Jul 12, 1995**PRIMARY INORGANIC CHEMICAL ANALYSIS**

Analyte	Reporting Limit mg/L (ppm)	Sample Results mg/L (ppm)
Arsenic.....	0.0040	N.D.
Barium.....	0.020	N.D.
Cadmium.....	0.00010	N.D.
Chromium.....	0.020	N.D.
Fluoride.....	0.10	N.D.
Lead.....	0.0020	N.D.
Mercury.....	0.0010	N.D.
Nitrate as N.....	0.10	N.D.
Selenium.....	0.0050	N.D.
Silver.....	0.020	N.D.
Sodium.....	0.50	N.D.
Turbidity, NTU.....	1.0	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Sally J. Hanley
Project Manager

507024.EAI <5>

Environmental Associates, Inc.
 2122 112th Avenue NE, #B-100
 Bellevue, WA 98004
 Attention: Dave Bair

Client Project ID: Wapato
 Sample Matrix: Water
 Units: mg/L (ppm)

Analyst: K. Gendron
 S. Davis

Reported: Jul 12, 1995

METALS QUALITY CONTROL DATA REPORT

ANALYTE	As	Ba	Cd	Cr	Pb	Hg	Se
---------	----	----	----	----	----	----	----

EPA Method:	7060	6010	7131	6010	7421	7470 Modified	7740
Date Analyzed:	Jul 7, 1995	Jul 6, 1995	Jul 7, 1995	Jul 6, 1995	Jul 7, 1995	Jul 6, 1995	Jul 7, 1995

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	0.050	1.0	0.00100	1.0	0.025	0.0050	0.025
LCS Spike Result:	0.050	0.82	0.00115	0.86	0.026	0.0043	0.028
LCS Spike % Recovery:	100	82	115	86	106	86	114
Upper Control Limit:	130	110	129	104	106	127	136
Lower Control Limit:	71	72	59	69	77	81	49
Matrix Spike Sample #:	B507024-01	B507024-01	B507024-01	B507024-01	B507024-01	B507024-01	B507024-01
Matrix Spike % Recovery:	110	88	116	91	86	84	103

PRECISION ASSESSMENT

Sample #:	B507024-01	B507024-01	B507024-01	B507024-01	B507024-01	B507024-01	B507024-01
Original:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Duplicate:	N.D.	N.D.	N.D.	N.D.	0.0021	N.D.	N.D.

Relative % Difference: Relative Percent Difference values are not reported at sample concentration levels less than 10 times the Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Sally J. Hanley
 Project Manager

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	Original Result - Duplicate Result	x 100
	(Original Result + Duplicate Result) / 2	

507024.EAI <7>

Environmental Associates, Inc.
2122 112th Avenue NE, #B-100
Bellevue, WA 98004
Attention: Dave Bair

Client Project ID: Wapato
Sample Matrix : Water
Units: mg/L (ppm)

Analyst: K. Gendron
S. Davis

Reported: Jul 12, 1995

METALS QUALITY CONTROL DATA REPORT

ANALYTE

Ag

Na

EPA Method:

7760

6010

Date Analyzed:

Jul 6, 1995

Jul 11, 1995

ACCURACY ASSESSMENT
**LCS Spike
Conc. Added:**

0.25

1.00

**LCS Spike
Result:**

0.25

1.14

**LCS Spike
% Recovery:**

100

114

**Upper Control
Limit:**

122

150

**Lower Control
Limit:**

64

41

**Matrix Spike
Sample #:**

B507024-01

B507024-01

**Matrix Spike
% Recovery:**

101

121

PRECISION ASSESSMENT
Sample #:

B507024-01

B507024-01

Original:

N.D.

9.3

Duplicate:

N.D.

9.4

**Relative %
Difference:**

Q-5

1.1

ORTH CREEK ANALYTICAL Inc.

Please Note:

Q-5 = RPD values are not reported at sample concentrations <10 X the Reporting Limit.


Sally J. Hanley
Project Manager

507024.EAI <8>

Environmental Associates, Inc.
2122 112th Avenue NE, #B-100
Bellevue, WA 98004
Attention: Dave BairClient Project ID: Wapato
Sample Descript: Water, MW-4
Sample Number: B507024-01Sampled: Jul 3, 1995
Received: Jul 3, 1995
Analyzed: Jul 3-11, 1995
Reported: Jul 12, 1995**SECONDARY INORGANIC CHEMICAL ANALYSIS**

Analyte	Reporting Limit mg/L (ppm)	Sample Results mg/L (ppm)
Chloride.....	0.20	4.4
Color, color units.....	5.0	10
Copper.....	0.030	N.D.
Hardness.....	1.0	86
Iron.....	0.10	0.30
Manganese.....	0.0050	0.066
Specific Conductivity, μ mhos/cm.....	1.0	230
Sulfate.....	0.20	14
Total Dissolved Solids.....	10	160
Zinc.....	0.020	0.037

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Sally J. Hanley
Project Manager

507024.EAI <9>

Environmental Associates, Inc.
 2122 112th Avenue NE, #B-100
 Bellevue, WA 98004
 Attention: Dave Bair

Client Project ID: Wapato
 Sample Descript: Water, MW-5
 Sample Number: B507024-02

Sampled: Jul 3, 1995
 Received: Jul 3, 1995
 Analyzed: Jul 3-11, 1995
 Reported: Jul 12, 1995

SECONDARY INORGANIC CHEMICAL ANALYSIS

Analyte	Reporting Limit mg/L (ppm)	Sample Results mg/L (ppm)
Chloride.....	0.20	7.7
Color, color units.....	5.0	N.D.
Copper.....	0.030	N.D.
Hardness.....	1.0	140
Iron.....	0.10	N.D.
Manganese.....	0.0050	N.D.
Specific Conductivity, μ mhos/cm.....	1.0	320
Sulfate.....	0.20	23
Total Dissolved Solids.....	10	180
Zinc.....	0.020	0.034

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


 Sally J. Hanley
 Project Manager

507024.EAI <10>

Environmental Associates, Inc.
2122 112th Avenue NE, #B-100
Bellevue, WA 98004
Attention: Dave BairClient Project ID: Wapato
Sample Descript: Water, MAIN WELL
Sample Number: B507024-03Sampled: Jul 3, 1995
Received: Jul 3, 1995
Analyzed: Jul 3-11, 1995
Reported: Jul 12, 1995**SECONDARY INORGANIC CHEMICAL ANALYSIS**

Analyte	Reporting Limit mg/L (ppm)	Sample Results mg/L (ppm)
Chloride.....	0.20	6.2
Color, color units.....	5.0	N.D.
Copper.....	0.030	N.D.
Hardness.....	1.0	110
Iron.....	0.10	N.D.
Manganese.....	0.0050	N.D.
Specific Conductivity, μ mhos/cm.....	1.0	300
Sulfate.....	0.20	15
Total Dissolved Solids.....	10	200
Zinc.....	0.020	0.046

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Sally J. Hanley
Project Manager

507024.EAI <11>

Environmental Associates, Inc.
 2122 112th Avenue NE, #B-100
 Bellevue, WA 98004
 Attention: Dave Bair

Client Project ID: Wapato
 Sample Descript: Method Blank
 Sample Number: BLK0703-071195

Analyzed: Jul 3-11, 1995
 Reported: Jul 12, 1995

SECONDARY INORGANIC CHEMICAL ANALYSIS

Analyte	Reporting Limit mg/L (ppm)	Sample Results mg/L (ppm)
Chloride.....	0.20	N.D.
Color, color units.....	5.0	N.D.
Copper.....	0.030	N.D.
Hardness.....	1.0	N.D.
Iron.....	0.10	N.D.
Manganese.....	0.0050	N.D.
Specific Conductivity, μ mhos/cm.....	1.0	N.D.
Sulfate.....	0.20	N.D.
Total Dissolved Solids.....	10	N.D.
Zinc.....	0.020	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Sally J. Hanley
 Project Manager

507024.EAI <12>

Environmental Associates, Inc.
2122 112th Avenue NE, #B-100
Bellevue, WA 98004
Attention: Dave Bair

Client Project ID: Wapato
Sample Matrix : Water
Units: mg/L (ppm)

Analyst: R. Wood
J. Wright

Reported: Jul 12, 1995

INORGANIC QUALITY CONTROL DATA REPORT

ANALYTE

Chloride Conductivity, $\mu\text{S}/\text{cm}$ Sulfate

EPA Method: 300.0 120.1 300.0
Date Analyzed: Jul 3, 1995 Jul 5, 1995 Jul 7, 1995

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	2.0	147	4.0
LCS Spike Result:	1.7	152	3.8
LCS Spike % Recovery:	85	103	95
Upper Control Limit:	103	121	138
Lower Control Limit:	88	84	61

PRECISION ASSESSMENT

Sample #:	B507024-01	B507004-01	B507024-01
Original:	4.4	13,000	14
Duplicate:	4.4	13,000	14
Relative % Difference:	0.0	0.0	0.0
Maximum RPD:	13	3.2	11

NORTH CREEK ANALYTICAL Inc.

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	Original Result - Duplicate Result	x 100
	(Original Result + Duplicate Result) / 2	


Sally J. Hanley
Project Manager

507024.EAI <13>

Environmental Associates, Inc.
2122 112th Avenue NE, #B-100
Bellevue, WA 98004
Attention: Dave Bair

Client Project ID: Wapato
Sample Matrix : Water
Units: mg/L (ppm)

Analyst: R. Wood
J. Wright

Reported: Jul 12, 1995

INORGANIC QUALITY CONTROL DATA REPORT

ANALYTE	Total Dissolved Solids	
	Color	Solids

EPA Method:	110.2	160.1
Date Analyzed:	Jul 3, 1995	Jul 5, 1995

PRECISION ASSESSMENT

Sample #:	B507024-01	B506567-01
Original:	10	N.D.
Duplicate:	10	N.D.

Relative % Difference: RPD values are not reported at sample concentration levels <5 X the Reporting Limit.

Maximum RPD:	25	35
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NORTH CREEK ANALYTICAL Inc.


Sally J. Hanley
Project Manager

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	Original Result - Duplicate Result	x 100
	(Original Result + Duplicate Result) / 2	

507024.EAI <14>

Environmental Associates, Inc.
 2122 112th Avenue NE, #B-100
 Bellevue, WA 98004
 Attention: Dave Bair

Client Project ID: Wapato
 Sample Matrix : Water
 Units: mg/L (ppm)

Analyst: K. Gendron
 S. Davis

Reported: Jul 12, 1995

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Cu	Fe	Mn	Zn	Hardness
EPA Method:	6010	6010	6010	6010	SM 2340-B/6010
Date Analyzed:	Jul 6, 1995	Jul 6, 1995	Jul 6, 1995	Jul 6, 1995	Jul 10, 1995
ACCURACY ASSESSMENT					
LCS Spike Conc. Added:	1.0	1.0	1.0	1.0	6.6
LCS Spike Result:	0.89	0.83	0.80	0.88	6.3
LCS Spike % Recovery:	89	83	80	88	95
Upper Control Limit:	106	121	121	105	125
Lower Control Limit:	76	66	58	64	75
Matrix Spike Sample #:	B507024-01	B507024-01	B507024-01	B507024-01	B507024-01
Matrix Spike % Recovery:	92	94	86	84	Q-3
PRECISION ASSESSMENT					
Sample #:	B507024-01	B507024-01	B507024-01	B507024-01	B507024-01
Original:	N.D.	0.30	0.066	0.037	88
Duplicate:	N.D.	0.28	0.062	0.035	89
Relative % Difference:	Q-5	Q-5	6.2	Q-5	1.1

NORTH CREEK ANALYTICAL Inc.

Please Note:

Q-3 = The Spike Recovery for this QC sample cannot be accurately calculated due to high concentration of analyte in the sample.

Q-5 = RPD values are not reported at sample concentrations <10 X the Reporting Limit.

Sally J. Hanley
 Project Manager

507024.EAI <15>

CHAIN OF CUSTODY REPORT

CLIENT: Environmental Associates, Inc - ADDRESS: 2122 112th Ave NE #B-100 Bellevue, WA 98004 PHONE: 455-9025 FAX: 455-2316 PROJECT NAME: Wapato PROJECT NUMBER: 5111-1 SAMPLED BY: Dave Bair				REPORT TO: Dave Bair BILLING TO: EAI P.O. NUMBER: 5111-1 NCA QUOTE #: Analysis Request: <div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); border: 1px solid black; padding: 2px;">EPA Primary Drinking Water</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); border: 1px solid black; padding: 2px;">EPA Secondary Drinking Water</div> </div>				TURNAROUND REQUEST in Business Days * <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 2px;">10</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">5</div> <div style="border: 1px solid black; padding: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">2</div> <div style="border: 1px solid black; padding: 2px;">1</div> </div> <p style="text-align: center; font-size: small;">(Please Select One)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 2px;">5</div> <div style="border: 1px solid black; padding: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">2</div> <div style="border: 1px solid black; padding: 2px;">1</div> </div> <p style="text-align: center; font-size: x-small;">* Turnaround Requests less than standard will incur Rush Charge</p> FAX RESULTS BY :																																																																																																																																																																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">SAMPLE IDENTIFICATION: <small>(NUMBER OR DESCRIPTION)</small></th> <th style="width: 15%;">SAMPLING DATE / TIME</th> <th style="width: 10%;">MATRIX <small>(W,S,O)</small></th> <th style="width: 10%;"># OF CONT.</th> <th colspan="10"></th> <th style="width: 20%;">COMMENTS & PRESERVATIVES USED</th> <th style="width: 15%;">NCA SAMPLE NUMBER</th> </tr> </thead> <tbody> <tr> <td>1. MW-4</td> <td>7-3/12:30a</td> <td>W</td> <td>6</td> <td>✓</td><td>✓</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td></td> <td>B5007024-c</td> </tr> <tr> <td>2. MW-5</td> <td>7-3/11:30a</td> <td>W</td> <td>6</td> <td>✓</td><td>✓</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td></td> <td>-U</td> </tr> <tr> <td>3. main well</td> <td>7-3/10:30a</td> <td>W</td> <td>6</td> <td>✓</td><td>✓</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td></td> <td>-C</td> </tr> <tr><td>4.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>				SAMPLE IDENTIFICATION: <small>(NUMBER OR DESCRIPTION)</small>	SAMPLING DATE / TIME	MATRIX <small>(W,S,O)</small>	# OF CONT.											COMMENTS & PRESERVATIVES USED	NCA SAMPLE NUMBER	1. MW-4	7-3/12:30a	W	6	✓	✓											B5007024-c	2. MW-5	7-3/11:30a	W	6	✓	✓											-U	3. main well	7-3/10:30a	W	6	✓	✓											-C	4.																	5.																	6.																	7.																	8.																	9.																	10.																				
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